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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,620	08/07/2001	Marcus Tong	2001P4227US01	3155

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Siemens Corporation
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EXAMINER	
LEVITAN, DMITRY	
ART UNIT	PAPER NUMBER
2416	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/924,620	TONG ET AL.	
	Examiner	Art Unit	
	Dmitry Levitan	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 April 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-7,9,10,12,14,19 and 20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3, 5-7, 9, 10, 12, 14, 19 and 20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Amendment, filed 4/01/09, has been entered. Claims 1-3, 5-7, 9, 10, 12, 14, 19 and 20 remain pending.

Claim Rejections - 35 USC § 112

1. In light of Applicant's amendment, claims 5-7, 9, 10, 12 and 14 rejection under 35 U.S.C. 112, first paragraph, has been withdrawn.

2. In light of Applicant's amendment, claims 5-7, 9, 10, 12 and 14 rejection under 35 U.S.C. 112, second paragraph, set in the previous Office action, has been withdrawn.

3. Claims 9, 10 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 limitations are incomplete, because claim 9 depends on the cancelled claim 8.

Claim 19 recites the limitation "said clock being a frame clock rate" in line 10. There is insufficient antecedent basis for this limitation in the claim, as the claim limitations comprise three clocks (first clock, second clock and a clock by which buffers are filled or emptied) and it is not understood which clock is considered "said clock being a frame clock".

Claim 10 is rejected as the claim depending on the rejected claim 9.

Claim Rejections - 35 USC § 103

4. Claims 1-3, 5-7, 9, 10, 12, 14, 19 and 20 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenblatt (US 5,136,586) in view of Matsumoto (US 5,812,944) and Wolf US 5,835,031).

5. Regarding claims 1, 5 and 12, Greenblatt substantially teaches the limitations of the claims:

A system and a method for rate adaptation in a communication system (multiplexing a voice signal into a frame, as shown on Fig.1-3, and disclosed on 2:33-3:50), comprising:

first circuitry in a first clock domain operable at a first clock frequency (A-D converter operable at clock C, as shown on Fig. 2 and disclosed on 2:45-55);

second circuitry in a second clock domain operable at a second clock frequency (D-A converter operating at a higher frequency C2, as shown on Fig.2 and disclosed on 2:56-61);

first and a second buffer pair interfacing between said first circuitry and said second circuitry domain, said first buffer pair comprising first and second jitter buffers (a pair of buffers A and B, interfacing A-D and D-A converters, as shown on Fig. 2 and disclosed on 3:5-16, wherein the buffers A and B are jitter buffers, because the buffer data is read out by the corresponding clock), wherein said first or second jitter buffers alternately fill at said first clock frequency and empty at said second clock frequency, wherein alternation between said first and second buffers occurs simultaneously at said second clocking frequency, said first clocking frequency associated with a sample clock, said second clocking frequency associated with a frame clock (alternating at each frame interval/clock entering data into buffers at first frequency C, which is a sample frequency 8 KHz, and read out data from buffers at second frequency C2, as disclosed on 3:6-16, wherein

the second frequency C2 is associated with a frame clock, as CLOCK C2 is derived from FRAME PULSE, as shown on Fig. 2 and disclosed on 3:61-4:9).

Greenblatt does not teach implementing his system as a wireless system, using a second buffer pair comprising third and fourth buffers and deriving first clock from local source and second clock from a remote source.

Matsumoto teaches a by-directional wireless system, wherein the communication system for voice is implemented by radio means and provide audio conversion in both directions to accommodate both speaker 25 and microphone 10, as shown on Fig. 1.

Wolf teaches communication system, comprising A/D and D/A operation in two frequency domains NET1 and NET2 with corresponding independent clocks f1 and f2, as shown on Fig. 1 and described on 1:10-60, wherein clock f1 is local to decoding (A/D or D/A) operation, performed in the system and encoding operation utilizes f2 clock, which is remote to the system.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add implementing the communication system as a wireless and by-directional system of Matsumoto and operating in independent frequency domains of Wolf to the system of Greenblatt, adding third and fourth buffers for the other direction of voice transmission, to implement the system in wireless environment to provide mobility to the users and adapt the system for the typical by-directional voice communication and increase reliability of the system by using independent clocks, as suggested by Wolf on 1:28-35.

In addition, regarding claim 5, Greenblatt inherently teaches audio input and output in the system, because they are essential for the system operation to receive the audio signal from a

microphone and transmit the output audio signal to telephone lines, as shown on Fig. 2. and buffers A and B inherently comprising interface circuitry, because interface circuitry is essential for the system to connect A-D and D-A elements to the buffers.

In addition, regarding claims 5 and 12, Greenblatt teaches two clock domains, operating on separate frequencies C and C2, as shown on Fig. 2 and 5, and described on 3:5-15, wherein the clock domains can be generated from a high speed system clock, but are external to each other, as they are correspond to different D-A and A-D circuitries.

6. Regarding claims 2, 3 and 6, Matsumoto teaches using encoders and decoders for digital signal processing 30 to exclude echo from the wireless system, as shown on Fig. 1 and disclosed on 2:23-3:9.

7. Regarding claim 7, Greenblatt teaches using first frequency as the 8 KHz sampling frequency at A-D conversion, which is a PCM conversion, disclosed on 2:45-55.

8. Claims 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenblatt in view of Matsumoto and Wolf.

Greenblatt in view of Matsumoto and Wolf substantially teaches the limitations of the claims (see claims rejections above), in addition Greenblatt teaches the second frequency C2 related to the frame clock, as CLOCK C2 is derived from FRAME PULSE, as shown on Fig. 2 and disclosed on 3:61-4:9.

Greenblatt in view of Matsumoto and Wolf does not teach selecting second/C2 frequency equal to the frame frequency.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add selecting second/C2 frequency equal to the frame frequency to the system of Greenblatt in view of Matsumoto and Wolf to simplify the system by excluding use of an additional frequency, as the frame frequency/FRAME PULSE is already used in the system.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greenblatt in view of Matsumoto and Wolf.

Greenblatt in view of Matsumoto and Wolf substantially teaches the limitations of the claim (see claims rejection above).

Greenblatt in view of Matsumoto and Wolf does not teach a frame comprises 160 samples.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add selecting the frame comprising 160 samples to the system of Greenblatt in view of Matsumoto and Wolf as a design choice, as frames comprising 80 samples or 320 samples will work in the system as well.

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greenblatt in view of Matsumoto and Wolf.

Greenblatt in view of Matsumoto and Wolf substantially teaches the limitations of the claim (see claims rejection above).

Greenblatt in view of Matsumoto and Wolf does not teach buffers length as 165 samples.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add selecting the buffers length as 165 samples to the system of Greenblatt in view of Matsumoto and Wolf as a design choice, as buffers comprising 164 samples or 166 samples will work in the system as well.

11. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greenblatt in view of Matsumoto and Wolf.

Greenblatt in view of Matsumoto and Wolf substantially teaches the limitations of the claim (see claims rejection above).

Greenblatt in view of Matsumoto and Wolf does not teach using system in a GSM/TDMA multi-mode phone.

Official notice is taken that GSM/TDMA multi-mode telephones are well known in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the system of Greenblatt in view of Matsumoto and Wolf as a GSM/TDMA multi-mode telephone system, to make the system compatible with two popular wireless standards.

Response to Arguments

12. Applicant's arguments filed 4/01/09 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claims 1-3, 5-7, 9, 10, 12, 14, 19 and 20 have been considered but are moot in view of the new ground(s) of rejection necessitated by the amendment.

On page 7 of the Response, Applicant argues that Greenblatt teaching is limited to a single source clock, because clocks C and C2 are derived from a single source, as shown on Fig. 5.

Examiner respectfully disagrees.

Greenblatt clearly teaches Fig. 5 circuitry as "suitable circuit" on 3:35-38, which does not exclude use of other means to generate clocks C and C2, as indicated by Grinblatt on 4:64-68.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dmitry Levitan/
Primary Examiner, Art Unit 2416